

CLAIMS

1. In the context of a printing system comprising one or more image data creation apparatuses creating image data and one or more printers carrying out printing based on at least a portion of the image data acquired from at least one of the image data creation apparatus or apparatuses, a printing system characterized in that it comprises:
 - one or more storage means for storing at least a portion of the image data;
 - one or more region specification means for specifying one or more arbitrary regions within at least a portion of the image data at which cropped printing should take place;
 - one or more image acquisition means for acquiring at least a portion of the image data stored at at least one of the storage means;
 - one or more cutting means for cutting one or more subsets from at least a portion of the acquired image data using one or more cutting frames established based on at least a portion of at least one of the region or regions specified by at least one of the region specification means;
 - one or more image processing means for, based on one or more aspect ratios of one or more sheets of printing paper and one or more aspect ratios of one or more images in at least one of the specified region or regions, carrying out prescribed processing on at least a portion of at least one of the image or images in at least one of the specified region or regions so as to cause no margin to be formed at least either horizontally or vertically on at least one of the sheet or sheets of printing paper; and
 - one or more printing means for printing at least a portion of at least one of the processed image or images.
2. A printing method characterized in that it comprises:
 - one or more steps in which at least a portion of the image data is stored;
 - one or more steps in which one or more arbitrary regions within at least a portion of the stored image data at which cropped printing should take place is or are specified;

5 one or more steps in which at least a portion of the stored image data is acquired;

6 one or more steps in which one or more subsets is or are cut from at least a portion of
7 the acquired image data using one or more cutting frames established based on at least a
8 portion of at least one of the specified region or regions;

9 one or more steps in which, based on one or more aspect ratios of one or more sheets
10 of printing paper and one or more aspect ratios of one or more images in at least one of the
11 specified region or regions, prescribed processing is carried out on at least a portion of at least
12 one of the image or images in at least one of the specified region or regions so as to cause no
13 margin to be formed at least either horizontally or vertically on at least one of the sheet or
14 sheets of printing paper; and

15 one or more steps in which at least a portion of at least one of the processed image or
16 images is printed.

1 3. A printing method according to claim 2 wherein:

2 at least one of the step or steps in which one or more subsets is or are cut from at least
3 a portion of the image data is such that portion or portions extending beyond one or more
4 edges of at least one of the sheet or sheets of printing paper is or are also taken into
5 consideration in establishing one or more cutting frames larger than at least one of the
6 specified locus or loci, at least a portion of the image data being cut therewith so as to cause
7 no margin to be formed at least horizontally or vertically on at least one of the sheet or sheets
8 of printing paper.

1 4. A printing method according to claim 3 wherein:

2 at least one of the step or steps in which prescribed processing is carried out on at least
3 a portion of at least one of the image or images is such that at least a portion of at least one of
4 the image or images in at least one of the specified region or regions is enlarged and/or
5 reduced and/or rotated based on one or more aspect ratios of one or more sheets of printing
6 paper and one or more aspect ratios of one or more images in at least one of the specified
7 region or regions and one or more print layouts.

1 5. A printing method according to claim 4 wherein:

2 at least one of the step or steps in which prescribed processing is carried out on at least
3 a portion of at least one of the image or images is such that, in the event that at least a portion
4 of at least one of the image or images in at least one of the specified region or regions is
5 rotated, at least a portion of at least one of the image or images in at least one of the specified
6 region or regions is rotated so as to cause one or more orientations of one or more edges in
7 one or more long directions of at least one of the image or images in at least one of the
8 specified region or regions to match one or more orientations of one or more edges in one or
9 more long directions of one or more print regions established at at least one of the sheet or
10 sheets of printing paper.

1 6. A printing method according to claim 5 wherein:

2 at least one of the step or steps in which prescribed processing is carried out on at least
3 a portion of at least one of the image or images is such that, in the event that at least a portion
4 of at least one of the image or images in at least one of the specified region or regions is
5 enlarged and/or reduced, enlargement and/or reduction is carried out such that at least one of
6 the aspect ratio or ratios of at least one of the image or images in at least one of the specified
7 region or regions is preserved.

1 7. A printing method according to claim 5 wherein:

2 at least one of the step or steps in which prescribed processing is carried out on at least
3 a portion of at least one of the image or images is such that, in the event that it is determined
4 that it is possible to achieve borderless printing with no margin on any of the four edges and
5 with distortion within one or more preestablished allowed ranges, at least a portion of at least
6 one of the image or images in at least one of the specified region or regions is enlarged and/or
7 reduced so as to be within at least one of the allowed range or ranges.

1 8. A printing method according to claim 6 further comprising:

2 one or more report means for reporting to one or more users that one or more margins

may be produced horizontally and/or vertically on at least one of the sheet or sheets of printing paper.

9. An image data creation apparatus creating image data for printing at one or more printers, the image data creation apparatus being characterized in that it comprises:

one or more storage means for storing at least a portion of the image data;

one or more region specification means for specifying one or more arbitrary regions within at least a portion of the stored image data at which cropped printing should take place; and

one or more print request means for, based on one or more aspect ratios of one or more sheets of printing paper and one or more aspect ratios of at least one of the specified region or regions, requesting that at least one of the printer or printers carry out printing so as to cause no margin to be formed at least either horizontally or vertically on at least one of the sheet or sheets of printing paper.

10. A printer characterized in that it comprises:

one or more means for acquiring image data;

one or more cutting means for cutting one or more subsets from at least a portion of the acquired image data using one or more cutting frames established based on one or more regions at which cropped printing should take place;

one or more image processing means for, based on one or more aspect ratios of one or more sheets of printing paper and one or more aspect ratios of one or more images in at least one of the region or regions at which cropped printing should take place, carrying out prescribed processing on at least a portion of at least one of the image or images in at least one of the specified region or regions so as to cause no margin to be formed at least either horizontally or vertically on at least one of the sheet or sheets of printing paper; and

one or more printing means for printing at least a portion of at least one of the processed image or images.

1 11. A printer according to claim 10 further comprising:

2 one or more report means for reporting to one or more users that one or more margins
3 may be produced horizontally and/or vertically on at least one of the sheet or sheets of printing
4 paper.

1 12. A printer according to claim 11 further comprising:

2 one or more region specification means for specifying one or more arbitrary regions
3 within at least a portion of the image data at which cropped printing should take place.

1 13. A printing method for carrying out borderless printing of one or more subsets of image
2 data on roll paper, the printing method being characterized in that it comprises:

3 one or more steps in which at least a portion of the image data is stored;

4 one or more steps in which one or more arbitrary regions within at least a portion of
5 the stored image data at which cropped printing should take place is or are specified;

6 one or more steps in which at least a portion of the stored image data is acquired;

7 one or more steps in which one or more subsets is or are cut from at least a portion of
8 the acquired image data using one or more cutting frames established based on at least a
9 portion of at least one of the specified region or regions;

10 one or more steps in which, based on one or more width dimensions of the roll paper
11 and one or more aspect ratios of one or more images in at least one of the specified region or
12 regions, prescribed processing is carried out on at least a portion of at least one of the image
13 or images in at least one of the specified region or regions so as to cause one edge of at least
14 one of the image or images in at least one of the specified region or regions to more or less
15 match at least one of the width dimension or dimensions of the roll paper; and

16 one or more steps in which at least a portion of at least one of the processed image or
17 images is printed.